



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

C3
Job Sheet 177448



Part No: C3

Job Qty: 1 ea

Part Name: C-Series Remote Hook 3,000 lbs Lift Capacity



Part Weight: 0 lbs

Status: At Planning

Priority: Medium

Job Created: 5/11/18

Job Tracking No:

Due Date: 5/31/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG C3 Rev 2 IPP Rev A 18.03.29 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	5/31/18	5/31/18	0.00	0.00	Start Up Small Fab-4		
100	Small Fab	1 pcs	5/31/18	5/31/18	0.00	1.00	Small Fab-3		
110	QC	1 pcs	5/31/18	5/31/18	0.00	0.00	QC5		
120	DC	1 pcs	5/31/18	5/31/18	0.00	0.00	DC		
130	Packaging	1 pcs	5/31/18	5/31/18	0.00	0.00	Packaging3-2		
140	QC21-SA	1 Ea	5/31/18	5/31/18	0.00	0.00	QC21		

Part Op 100 - 1- PICK C3-2-1 AND LASER ENGRAVE AS PER DWG . SEE NOTE 3 AND 4 ON SHEET 3. 2- ASSEMBLE AS
Descriptions: PER DWG

120 - - Photocopy blue file OM & OOPM-C3 Rev 4

130 - Identify and Stock

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
188-FPSS-1032-1/4	Set Screw	2 Ea (2 ea)	90-Start up Operation	8058750
188-FSCS-832-5/8	Clock Spring Cover Screw	4 Ea (4 ea)	90-Start up Operation	8038399
2595K22	Heat Shrink Tube	1 Ea (1 ea)	100-Small Fab	8073047
32446	Crimp Terminal	2 Ea (2 ea)	100-Small Fab	8089146
8183K6	Wire Guide/Grip	1 Ea (1 ea)	100-Small Fab	8066770
AN4-16A	Bolt	3 Ea (3 ea)	100-Small Fab	8099494
AN4-17A	Bolt	1 Ea (1 ea)	100-Small Fab	8089287
AN6-15A	Bolt	1 Ea (1 ea)	100-Small Fab	8076004
C2-1-1	Manual Release Knob	1 Ea (1 ea)	100-Small Fab	8100195
C2-10-1	Lock Spring Pin	1 pcs (1 ea)	100-Small Fab	8068051
C2-11-2	Locating Pin	2 Ea (2 ea)	100-Small Fab	8058757
C2-3-1	Bearing DU	2 pcs (2 ea)	100-Small Fab	8093406
C2-3-10	Latch Shaft	1 Ea (1 ea)	100-Small Fab	8046764
C2-3-11	Actuator	1 pcs (1 ea)	100-Small Fab	8075123
C2-3-2 P	Latch Roller Pin	1 Ea (1 ea)	100-Small Fab	8029246
C2-3-2-1	Roller Pin Retaining Ring	2 Ea (2 ea)	100-Small Fab	8056845
C2-3-3	Latch Roller	1 Ea (1 ea)	100-Small Fab	8068693
C2-3-3-1	Latch Roller DU Bearing	1 Ea (1 ea)	100-Small Fab	8096109
C2-3-5	Spacer, Teflon	2 Ea (2 ea)	100-Small Fab	8058758
C2-3-6	Latch	1 Ea (1 ea)	100-Small Fab	8083629
C2-3-8	Actuator Bushing	2 Ea (2 ea)	100-Small Fab	8079664
C2-5-1	Actuator Stop	1 Ea (1 ea)	100-Small Fab	8058759

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

C3-10-2	Lock Spring	1 Ea (1 ea)	100-Small Fab
C3-11-1	Side Plate - Solenoid C3-Hook	1 Ea (1 ea)	100-Small Fab
C3-12-1	Lock Bushing	2 Ea (2 ea)	100-Small Fab
C3-12-2	Lock Shaft - C3 Hook	1 Ea (1 ea)	100-Small Fab
C3-12-3	Lock - C3 Hook	1 Ea (1 ea)	100-Small Fab
C3-12-4	Lock Roller	1 Ea (1 ea)	100-Small Fab
C3-12-5	Lock Roller Pin	1 Ea (1 ea)	100-Small Fab
C3-12-6	Lock Roller Pin Circlip	2 Ea (2 ea)	100-Small Fab
C3-13-1	Keeper Bushing	2 pcs (2 ea)	100-Small Fab
C3-13-4	KEEPER	1 pcs (1 ea)	100-Small Fab
C3-13-5	Spring, Keeper	1 pcs (1 ea)	100-Small Fab
C3-2-1	Side Plate C-3 Hook	1 Ea (1 ea)	100-Small Fab
C3-3-4	Link Pin	2 Ea (2 ea)	100-Small Fab
C3-3-4-1	Ring, Retaining	4 pcs (4 ea)	100-Small Fab
C3-3-7	Link	1 Ea (1 ea)	100-Small Fab
C3-3-9	Actuator Spring	1 pcs (1 ea)	100-Small Fab
C3-4-1	Load Beam Bushing	2 Ea (2 ea)	100-Small Fab
C3-4-4A	C3 Load Beam Assy	1 Ea (1 ea)	100-Small Fab
C3-7-1	Load Beam Bumper	1 Ea (1 ea)	100-Small Fab
C3-7-2	Lock Bumper	2 Ea (2 ea)	100-Small Fab
C3-8-2	Solenoid	1 Ea (1 ea)	100-Small Fab
C3-8-4	Solenoid Cover Gasket	1 Ea (1 ea)	100-Small Fab
C3-8-5	Solenoid Cover	1 Ea (1 ea)	100-Small Fab
C3-9-1	Clock Spring Cover - C3 Hook	1 Ea (1 ea)	100-Small Fab
C3-9-2	Spring, Clock	1 pcs (1 ea)	100-Small Fab
EL-PLUG-M	3-Prong Male Spade Plug	1 Ea (1 ea)	100-Small Fab
M27500-16TG2T14	Wire - 16-Gauge - Shielded	1 pcs (1 ea)	100-Small Fab
MS21044N4	Nut, Self-Locking	4 Ea (4 ea)	100-Small Fab
MS21083-N3	Nut	2 Ea (2 ea)	100-Small Fab
MS21083N6	Nut	1 Ea (1 ea)	100-Small Fab
MS35266-63	Solenoid Cover Screw	1 Ea (1 ea)	100-Small Fab
MS35266-63	Solenoid Cover Screw	1 Ea (1 ea)	100-Small Fab
NAS1149F0332P	Washer	2 Ea (2 ea)	100-Small Fab
NAS1149F0363P	Washer	1 Ea (1 ea)	100-Small Fab
NAS1149F0463P	Washer	8 Ea (8 ea)	100-Small Fab
NAS1149F0632P	Washer	2 Ea (2 ea)	100-Small Fab

5098948
 5079472
 5094891
 5079009
 5079266
 5100620
 5100174
 5093407
 5029270
 508272
 5089547
 5077290
 5094866
 5104709
 5048430
 5099320
 5029282
 5100147
 510988
 511488
 507444
 50510011
 5029289
 5089524
 5054451
 5075144
 5092510
 5076011
 5076012
 5038767
 5038767
 5103666
 5075330
 5078780
 5067038

5029280

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	188-FPSS-1032-1/4	2	102	0
	188-FSCS-832-5/8	4	176	0
100-Small Fab	2595K22	1	25	0
	32446	2	90	0
	8183K6	1	10	0
	AN4-16A	3	407	0
	AN4-17A	1	464	0
	AN6-15A	1	30	0
	C2-1-1	1	0	0
	C2-10-1	1	100	0
	C2-11-2	2	100	0
	C2-3-1	2	70	0
	C2-3-10	1	28	0
	C2-3-11	1	0	0
	C2-3-2	1	0	0
	C2-3-2-1	2	98	0
	C2-3-3	1	20	0
	C2-3-3-1	1	29	0
	C2-3-5	2	100	0
	C2-3-6	1	0	0
	C2-3-8	2	4	0
	C2-5-1	1	20	0
	C3-10-2	1	30	0
	C3-11-1	1	0	0
	C3-12-1	2	32	0
	C3-12-2	1	0	0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

C3-12-3	1	0	0
C3-12-4	1	0	0
C3-12-5	1	0	0
C3-12-6	2	46	0
C3-13-1	2	20	0
C3-13-4	1	0	0
C3-13-5	1	0	0
C3-2-1	1	0	0
C3-3-4	2	30	0
C3-3-4-1	4	108	0
C3-3-7	1	50	0
C3-3-9	1	0	0
C3-4-1	2	0	0
C3-4-4A	1	0	0
C3-7-1	1	9	0
C3-7-2	2	34	0
C3-8-2	1	0	0
C3-8-4	1	0	0
C3-8-5	1	0	0
C3-9-1	1	0	0
C3-9-2	1	0	0
EL-PLUG-M	1	55	0
M27500-16TG2T14	1	0	0
MS21044N4	4	154	0
MS21083-N3	2	0	0
MS21083N6	1	24	0
MS35266-63	2	43	0
NAS1149F0332P	2	2,902	0
NAS1149F0363P	1	217	0
NAS1149F0463P	8	458	0
NAS1149F0632P	2	641	0



1470 Audreth Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1-613-632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S114965



Part: C3

Job No: 177448

Serial No/Batch: S114965

Revision: 2

Inspector:

Exp Date:

Instructions:

Date: 10/01/18

AM Dart.lajeunesse.marie

Loctite 648

m 138933

Grease Aeroshell

m 138724

SAFT-EZE

m 138063

Antiseize

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation			Disposition																		
			Completed By																		
			Lead hand / Supervisor Approval Verification																		
			QC / QA Coordinator Approval																		
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER :																					



Remote Cargo Hook Test Form

C3

MAKE SURE YOU ARE USING THE CORRECT TEST FORM FOR THE CORRECT SOLENOID!

NEW SOLENOID (152951-001)

Work Order 177448

Customer 8831

Serial Number 5114965

Date 03/10/18

# of Releases	Load (Lbs.)	Release Method	Remarks	Result	Pass/Fail
1	7,500	Static Hold	Hold for two minutes and reduce load to zero	N/A	Pass
10	1,500	Electircal, 25 volts	No "hang ups" permitted	N/A	Pass
2	3,000	Electircal, 22 volts	Current shall not exceed 12.8 A	A	Pass
2	2,500	Electircal, 22 volts	Current shall not exceed 12.8 A	A	Pass
2	2,000	Electircal, 22 volts	Current shall not exceed 12.8 A	A	Pass
2	1,500	Electircal, 22 volts	Current shall not exceed 12.8 A	A	Pass
2	500	Electircal, 22 volts	Current shall not exceed 12.8 A	A	Pass
1	3,000	Electircal, 20 volts	Current shall not exceed 11.6 A	A	Pass
1	3,000	Electircal, 28 volts	Current shall not exceed 16.2 A	A	Pass
1	3,000	Manual		N/A	Pass
1	3,000	Impact Test	Impact shackle 10x , shall not release	N/A	Pass
1	N/A	Solenoid Ohms	Shall not exceed 1.7-2.0 Ω	1.9 Ω	Pass
1	N/A	Electircal Continuity	Across both wires	N/A	Pass

Test Conducted By: Francis Lacroix
Technician

Signature:
QC 5 Small FAB / QA

Submit